

NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY - NOMINATION FORM

(Type all entries - complete applicable sections)

STATE: Maryland	
COUNTY: Cecil	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

<b>1. NAME</b>	
COMMON: Principio Furnace	
AND/OR HISTORIC: Principio Iron Furnace; Principio Iron Works	

<b>2. LOCATION</b>			
STREET AND NUMBER: South side of Post Road, 1 1/2 miles east of Perryville			
CITY OR TOWN: Perryville			
STATE Maryland	COOE 24	COUNTY: Cecil	COOE 015

<b>3. CLASSIFICATION</b>					
CATEGORY (Check One)	OWNERSHIP	STATUS		ACCESSIBLE TO THE PUBLIC	
<input type="checkbox"/> District <input type="checkbox"/> Building <input type="checkbox"/> Site <input checked="" type="checkbox"/> Structure <input type="checkbox"/> Object	<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private <input type="checkbox"/> Both	Public Acquisition: <input type="checkbox"/> In Process <input type="checkbox"/> Being Considered		<input checked="" type="checkbox"/> Occupied <input type="checkbox"/> Unoccupied <input type="checkbox"/> Preservation work in progress	Yes: <input type="checkbox"/> Restricted <input type="checkbox"/> Unrestricted <input checked="" type="checkbox"/> No
PRESENT USE (Check One or More as Appropriate)					
<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Educational <input type="checkbox"/> Entertainment	<input type="checkbox"/> Government <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Military <input type="checkbox"/> Museum	<input type="checkbox"/> Park <input checked="" type="checkbox"/> Private Residence <input type="checkbox"/> Religious <input type="checkbox"/> Scientific	<input type="checkbox"/> Transportation <input type="checkbox"/> Other (Specify) _____ _____	<input type="checkbox"/> Comments _____ _____	

<b>4. OWNER OF PROPERTY</b>			
OWNER'S NAME: Whitaker Iron Company			
STREET AND NUMBER: Laconia Building			
CITY OR TOWN: Wheeling	STATE: West Virginia	COOE 54	

<b>5. LOCATION OF LEGAL DESCRIPTION</b>			
COURTHOUSE, REGISTRY OF DEEDS, ETC: Cecil County Courthouse			
STREET AND NUMBER: Main Street, on the corner of North Street			
CITY OR TOWN: Elkton	STATE: Maryland	COOE 24	

<b>6. REPRESENTATION IN EXISTING SURVEYS</b>			
TITLE OF SURVEY: Maryland Register of historic sites and landmarks			
DATE OF SURVEY: 1970 <input checked="" type="checkbox"/> Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> County <input type="checkbox"/> Local			
DEPOSITORY FOR SURVEY RECORDS: Maryland Historical Trust			
STREET AND NUMBER: 94 College Avenue			
CITY OR TOWN: Annapolis	STATE: Maryland	21401	COOE 24

SEE INSTRUCTIONS

STATE: Maryland	COUNTY: Anne Arundel	ENTRY NUMBER	DATE
		FOR NPS USE ONLY	

## 7. DESCRIPTION

CONDITION	(Check One)					
	<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input checked="" type="checkbox"/> Deteriorated	<input type="checkbox"/> Ruins	<input type="checkbox"/> Unexposed
	(Check One)			(Check One)		
	<input type="checkbox"/> Altered	<input checked="" type="checkbox"/> Unaltered	<input type="checkbox"/> Moved	<input checked="" type="checkbox"/> Original Site		

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

Principio Furnace, the first blast furnace in the state of Maryland, and one of the first in the nation, is located near Perryville, Cecil County, Maryland. The furnace site is on the banks of Principio Creek at the head of the Chesapeake Bay. The site, approximately 75 miles from Washington, D. C., is on either side of Maryland route 7 about 2 miles northeast of Perryville. Designated by an historical marker, it is presently inaccessible to the public.

Of the "50,000 tons of pig & bar iron imported from G. B. to Md. between 1718-1755, perhaps 1/2 came from the [original] furnace[s] owned by the Principio Company." (Douglas pg.5, sec.9)

A third furnace, the one standing in 1970, was constructed in 1836 by the predecessors of the 1970 property owners, the Whitaker Iron Company, and was in blast until 1894.

An 1840 description of the undetermined site says that the hearth from the original (1723) furnace was still standing in 1840. In 1890 the fourth and last furnace was built at Principio. When iron production at this site was discontinued after World War I, this furnace was dismantled and sold. The site has remained in essentially the same condition since the dismantling of the last furnace. There were at least four furnaces at one time or another. The other furnaces and forges are no longer above ground, having been destroyed or dismantled.

Near the 1836 extant furnace is a turbine which is connected with a blowing machine through a series of gears. Behind the furnace is a large heater which provided a hot blast for this furnace. The heater and blowing machine were probably built after the furnace, but the date of construction has not yet been determined.

In the area surrounding the furnace is a large number of buildings; some have little connection with the production of iron, but were undoubtedly important in the everyday life of those who worked at the furnace. This relatively self-sustaining community provided food, shelter and clothing for those who worked there.

One of the more interesting of the structures at Principio is a circular, brick charcoal-burner which, according to local authorities, was used only once. The excellent condition of the exterior of the structure and the rather thin layer of carbon on the inside confirm this assertion.

There are buildings in the area constructed at various times. No attempt to "freeze" Principio to one date need be made in relation to any restoration work to be done. The lack  
(see continuation sheet)

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(Number all entries)

Principio Furnace

#6. REPRESENTATION IN EXISTING SURVEYS continued

Historic American Buildings Survey

1969

Library of Congress  
Washington, D. C.

code: 11

#7. DESCRIPTION continued

of consistency in styles can be turned into an advantage by using the buildings to indicate the growth and decline of the industry at Principio. The representation of Principio at a certain date can be shown by means of illustrations and displays.

The process of manufacturing iron can be shown by the location of foundations, dams, races and the natural configuration of the area. Since the 1836 furnace is in such good condition, all efforts should be made to restore the furnace, the blowing machinery, and the hot blast heater.

The Principio Furnace Post Office building would provide an excellent visitor information center since it is located on Route 7 and is one of the first structures that one sees on the site.

Other structures on the property include the following:

- A brick machine shop
- A brick shed
- A brick wheelwright's shop
- A brick saw mill and tool shop
- A wooden scrap shed
- A wooden charcoal shed
- A wooden mule barn
- A wooden blacksmith's shop
- A wooden building used as a post office until 1836
- A wooden building constructed in 1836 and used as a post office and as a company office
- Three wooden houses probably used by laborers
- Two houses of undetermined use
- An ironmaster's house built in 1837 and presently occupied by the caretaker for the Whitaker Iron Company

(1 of 6 continuation sheets)

NATIONAL REGISTER OF HISTORIC PLACES  
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(Continuation Sheet)

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Principio Furnace

#7. DESCRIPTION continued

The condition of the structures varies. Some, like the 1836 post office and works office, the ironmaster's house and the charcoal-burner are in excellent condition; others, like the wooden charcoal shed and scrap shed, are about to collapse. At least half of the buildings on the site, including the 1836 furnace, are in good condition.

Since there has never been any extensive archeological excavation at the Principio site, there are very few objects relating to iron-making at Principio known to exist in private or public collections.

The following items are known or presumed to have come from Principio:

- a) A pig of iron found near the location of the original furnace and stamped "Principio 1727"
- b) Several pigs of iron marked "Principio\*1751" found in the bed of the Patapsco River
- c) A cannon found in Chesapeake Bay and stored today in a barn at Principio
- d) Several iron buckets used to hoist raw materials into the furnace
- e) A charcoal wagon made and used at Principio and presently on display at the Hopewell Furnace site in Pennsylvania
- f) Two log-carriers recently discovered inside the charcoal-burner at Principio

It seems likely that a survey of the artifact collections of various iron companies (the most obvious being the Whitaker Iron Company), museums and historical societies would reveal the existence of more objects. The most promising source, however, is the site itself, which should yield innumerable objects in an archeological "dig."

The Principio site provides a unique opportunity to become involved in the area of "industrial archeology." Here would be the restoration of a furnace which was vital to the economic and technological growth of our nation.

The presence of the Smithsonian Institution committee to be involved in the restoration might involve a "dig" at the Principio site as a part of a program in Material Culture or as a separate field of study. Archeological activity at Principio would provide experience for the student or professional in the field of archeology, and would expand the methodology of the more academ-

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Principio Furnace

#7. DESCRIPTION continued  
ically oriented student and scholar.

The beneficiaries of this project would be the citizens of Maryland, the professional staff of the Smithsonian, and students in archeology, museology and history. As well as being a workshop for the educational programs of the Smithsonian, a restored Principio Furnace site would be a tribute to the imagination and foresight of this institution.

The restoration at Principio should be as extensive as possible without distorting the actual conditions and history. Some structures, such as the machine shop, although structurally sound, would need extensive interior restoration; others, like the charcoal-burner, require little restoration.

The Department of Forests and Parks' definite interest in restoring the furnace suggests that the funds, manpower and heavy equipment be furnished by the state; the technical advice and assistance be generated from the Smithsonian Institution.

Techniques similar to those used in the more "traditional" restoration would be dealing with structures which have heretofore been ignored by those concerned with restoration. Notable exceptions, of course, are the restorations of the iron works at Saugus, Massachusetts, and at Cornwall and Hopewell in Pennsylvania.

#8. SIGNIFICANCE continued

In 1719 the General Assembly of Maryland promoted the need for iron production and passed an act to encourage such manufacturing. It said in part:

That if any person or persons shall desire to set up a forging mill or other conveniences for carrying on Iron Works on lands not before cultivated adjoining a stream, he may get a writ ad quod damnum. On the return of this, if the owner refuses to build such a mill and gives securities to complete it within four years, the governor may grant one hundred acres, the owner being paid for it.

As a result of this act a large number of acres was purchased by

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## 8. SIGNIFICANCE

## PERIOD (Check One or More as Appropriate)

- ☐ Pre-Columbian    ☐ 16th Century    ☒ 18th Century    ☐ 20th Century  
☐ 15th Century    ☐ 17th Century    ☒ 19th Century

SPECIFIC DATE(S) (If Applicable and Known) 1723, 1823, 1890, 1970

## AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- |   |  |  |  |
|---|--|--|--|
| <input type="checkbox"/> Aboriginal     | <input type="checkbox"/> Education           | <input type="checkbox"/> Political           | <input type="checkbox"/> Urban Planning  |
| <input type="checkbox"/> Prehistoric    | <input type="checkbox"/> Engineering         | <input type="checkbox"/> Religion/Philosophy | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Historic       | <input checked="" type="checkbox"/> Industry |  | <u>industrial</u>                        |
| <input type="checkbox"/> Agriculture    | <input type="checkbox"/> Invention           | <input type="checkbox"/> Science             | <u>archaeology &amp;</u>                 |
| <input type="checkbox"/> Architecture   | <input type="checkbox"/> Landscape           | <input type="checkbox"/> Sculpture           | <u>architecture</u>                      |
| <input type="checkbox"/> Art            | <input type="checkbox"/> Architecture        | <input type="checkbox"/> Social/Humanitarian |  |
| <input type="checkbox"/> Commerce       | <input type="checkbox"/> Literature          |  |  |
| <input type="checkbox"/> Communications | <input type="checkbox"/> Military            | <input type="checkbox"/> Theater             |  |
| <input type="checkbox"/> Conservation   | <input type="checkbox"/> Music               | <input type="checkbox"/> Transportation      |  |

## STATEMENT OF SIGNIFICANCE

Being the first iron furnace in Maryland and one of the first in the country, the Principio Furnace, along with the other holdings of the company, gave impetus to the growth of an iron industry and stimulated the economy of eighteenth-century America. It has been estimated that of the approximately 50,000 tons of pig and bar iron imported to Great Britain from Maryland between 1718 and 1755, perhaps half came from the furnaces owned by the Principio Company. The Principio Furnace contributed to the war effort in the Revolutionary War and the War of 1812 by supplying cannon balls to the American troops, thereby making it relevant to our military history. Until the British destroyed the iron-making facilities at Principio, cannon and cannon balls were produced at this site during the War of 1812. George Washington's father, Augustine, was intimately connected with the Principio Company and its fortunes. He supplied ore for use at Principio Furnace, and helped to manage the Accoceek Furnace after it was found more economical to smelt ore near the mines than to ship it to Principio Furnace. Augustine Washington held a one-twelfth interest in the Principio Company. The eighteenth-century need for rehabilitating British iron production precipitated the first international iron trade leading to the construction of a furnace in the colonies.

In 1714 a group of English businessmen organized a company in England for the purpose of promoting the production of iron in America to supplement the diminishing production and increasing need in England. The group, later organized as the Principio Company, consisted of Joshua, Samuel and Ozgood Gee; William Chetwynd; and Sir Nicholas Carew. The following year (1715) Joseph Farmer was sent to the new country to explore the possibilities of setting up iron-processing facilities; and by 1716 Stephen Onion, William and Thomas Russell, and twenty indentured servants (all experienced iron-makers) began to produce small quantities of iron on land in Maryland purchased by the company. It seems likely that the iron made prior to 1720 came from a bloomery in North East, Maryland, that was in existence as early as 1716. During the same time construction was begun on a forge at the same site.

(see continuation sheet)

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Principio Furnace

#8. SIGNIFICANCE continued

the Principio Company in 1721 and 1722. Included in the acquisitions was the land bordering Principio Creek, where, by 1722, the construction of the first blast furnace in the province had begun. The furnace, known as "Principio" because of its unique status in the colony, was completed in 1723, although the first blast did not take place until the following year. Realizing that the quantity of ore in the immediate vicinity of the furnace was limited, the company acquired the rights to the ore on Gorsuch Point (located on the east side of the Patapsco River opposite Fort McHenry), from whence boats carried the ore to the Principio Furnace.

By 1725 the company had erected a forge at Principio and had begun to expand its operations to Virginia. John England, the manager of the Principio Company in America, entered into negotiations with Augustine Washington, the father of the President, concerning the ore deposits on his property near Accocek Creek, inland from the Potomac River about seven miles and nine miles north of Fredericksburg. In 1726 an agreement was reached whereby Augustine Washington was to supervise the mining of the ore on his land and deliver it by wagon to the nearest landing on the Potomac River. The Principio Company bargained to transport the ore from the wharf to its furnace at Principio, smelt it, and pay Augustine Washington twenty shillings for each ton of iron smelted. By 1727 the company decided to build a furnace at Accocek (which was in full blast by the end of the year), and in subsequent negotiations Augustine Washington was given a one-twelfth interest in the Principio Company.

The records of the company show that in August of 1727 the furnace at Principio produced 40 tons of pig iron. The ledger of that month gives the following costs for producing such an amount:

Account of Pigs at Furnace, August, 1727

	L	s	d
Iron ore, 90 tons at 15s.....	67	10	0
Charcoal, 90 loads (11,880 bu.), @18s.....	81	0	0
Oyster shells and limestone.....	55	0	0
Wages, John Barker, founder, 40 tons @2/6. 5	5	0	0
Other labor, 40 tons @5/6.....	11	0	0
Disbursements.....	2	0	0
Total production, 40 tons of pig iron, at cost of.....	171	10	0

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Principio Furnace

#8. SIGNIFICANCE continued

The iron from the furnace at Principio was praised by Emmanuel Swedenborg in De Ferro, published in 1734:

There are several furnaces for the smelting of iron ore, as well as works for the smelting of raw iron, not so very long since built. The principal work is called Principio, in the upper part of the province of Maryland, upon the river called Principio, from which it also derives its name; its water is said to fall from a height of 25 feet. At this iron work little two-oared boats and little ships land laden with iron ore, which is dug 50 miles from there. The ore is said to be of a white or gray color, not unlike the vases of Holland pottery, containing 50 per cent. of iron. The iron from this ore is said to carry off the palm from the rest.

In the first half of the century the Principio Company added to its holdings by building the Kingsbury Furnace in Baltimore County and by purchasing the Lancashire Furnace, which was probably located on the Patapsco River. The assets of the company by the middle of the 18th century are described by Henry Whitely, who wrote an historical sketch of the Principio company in 1887:

By 1751 it outranked all competitors and was sole proprietor of four furnaces and two forges: Principio furnace and forge, Cecil County, Maryland... North East Forge, Cecil County, Maryland, built about 1720; Accokeek furnace Virginia, built about 1725; Kingsbury furnace...built about 1744; Lancashire furnace...purchased in 1751.

They owned slaves and live stock in abundance: their tracts of land, chiefly woodland, for coaling, were of vast extent, amounting in the aggregate to nearly 30,000 acres in Maryland alone ...and one-half of the pig iron exported to Great Britain from this country came from their works.

The decline of the Principio Company came with the Revolutionary War. After the outbreak of hostilities the company no longer had control of its property; however, bar iron and cannon balls were supplied to the Continental troops at this time. In 1780 the Maryland General Assembly confiscated the property at



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Principio Furnace

#8. SIGNIFICANCE continued

Principio, and activity ceased until 1785, when the land was purchased from the State and a blast furnace (the second at the Principio site) was erected a few hundred yards south of the original furnace. During the War of 1812 cannon and cannon balls were made at the Principio iron-works, but this activity ceased when the British, under the command of Admiral Cockburne, landed in barges in Furnace Bay, destroyed the furnace and whatever cannon and balls they found, and set fire to the other structures in the area.

A recent archaeological examination concentrated around the present furnace, constructed in 1836 by the predecessors of the Whitaker Iron Company, and in blast until 1894, although some of the structures in the surrounding area were examined. After a day of digging, cleaning and measuring, the excellent condition of the furnace and of the machinery used to force air into the furnace was revealed. On this one day several previously undiscovered objects were uncovered by the workers.

In 1890 the fourth and last furnace was built at Principio. When iron production at the Principio site was discontinued after World War I, this furnace was dismantled and sold.

#9. MAJOR BIBLIOGRAPHICAL REFERENCES continued

(cont.) and Civil Engineering, Museum of History and Technology, Smithsonian Institution, Washington, D. C. October 1968. Files of the Maryland Historical Trust, Annapolis, Maryland 21401.

[Vogel, Robert]. "The Principio Iron Furnace, Principio Furnace (near Perryville), Cecil County, Maryland." (1968). Files of the Maryland Historical Trust, Annapolis, Maryland 21401.

Works Progress Administration. Maryland A Guide to the Old Line State. New York: Oxford, 1940.

## 9. MAJOR BIBLIOGRAPHICAL REFERENCES

Recorder: Ann D. Parish, Keeper of the Maryland Register,  
Maryland Historical Trust, 94 College Avenue, Annapolis,  
Maryland 21401.

Douglas, Paul, "A Report Concerning the Possibilities of  
Restoring Principio Furnace, the First Furnace in Maryland  
and Containing Some Comments on the Desirability of the  
Smithsonian Institution Taking an Active Part in the  
Process of Restoration." Division of Mechanical (cont.)

## 10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY			O R	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES		
CORNER	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	
	Degrees Minutes Seconds	Degrees Minutes Seconds		Degrees Minutes Seconds	Degrees Minutes Seconds	Degrees Minutes Seconds
NW	39° 34' 47"	76° 02' 11"				
NE	39° 34' 45"	76° 01' 38"				
SE	39° 34' 17"	76° 01' 40"				
SW	39° 34' 19"	76° 02' 13"				

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: 185 acres

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE

## 11. FORM PREPARED BY

NAME AND TITLE:

Mrs. Preston Parish, Keeper of the Maryland Register

ORGANIZATION

Maryland Historical Trust

DATE

June 24, 1971

STREET AND NUMBER:

94 College Avenue

CITY OR TOWN:

Annapolis

STATE

Maryland 21401

CODE

24

## 12. STATE LIAISON OFFICER CERTIFICATION

As the designated State Liaison Officer for the Na-  
tional Historic Preservation Act of 1966 (Public Law  
89-665), I hereby nominate this property for inclusion  
in the National Register and certify that it has been  
evaluated according to the criteria and procedures set  
forth by the National Park Service. The recommended  
level of significance of this nomination is:

National ☒ State ☒ Local ☒

Name

Orlando Ridout IV

Orlando Ridout IV

Title

State Liaison Officer  
For Maryland

Date July 8, 1971

## NATIONAL REGISTER VERIFICATION

I hereby certify that this property is included in the  
National Register.

Chief, Office of Archeology and Historic Preservation

Date

ATTEST:

Keeper of The National Register

Date

SEE INSTRUCTIONS



UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES  
PROPERTY PHOTOGRAPH FORM**

(Type all entries - attach to or enclose with photograph)

STATE Maryland	
COUNTY Cecil	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

MHT CE-112

SEE INSTRUCTIONS

<b>1. NAME</b>			
COMMON: Principio Furnace			
AND/OR HISTORIC: Principio Iron Furnace; Principio Iron Works			
<b>2. LOCATION</b>			
STREET AND NUMBER: South side of Post Road, 1 1/2 miles east of Perryville			
CITY OR TOWN: Perryville			
STATE: Maryland	CODE 24	COUNTY: Cecil	CODE 015
<b>3. PHOTO REFERENCE</b>			
PHOTO CREDIT: Smithsonian Institution			
DATE OF PHOTO: April 1968			
NEGATIVE FILED AT: Division of Mechanical & Civil Engineering Smithsonian Institution, Washington, D. C. 20560			
<b>4. IDENTIFICATION</b>			
DESCRIBE VIEW, DIRECTION, ETC.  Blast-air heater (1) and furnace stack			

## NATIONAL REGISTER OF HISTORIC PLACES

## PROPERTY PHOTOGRAPH FORM

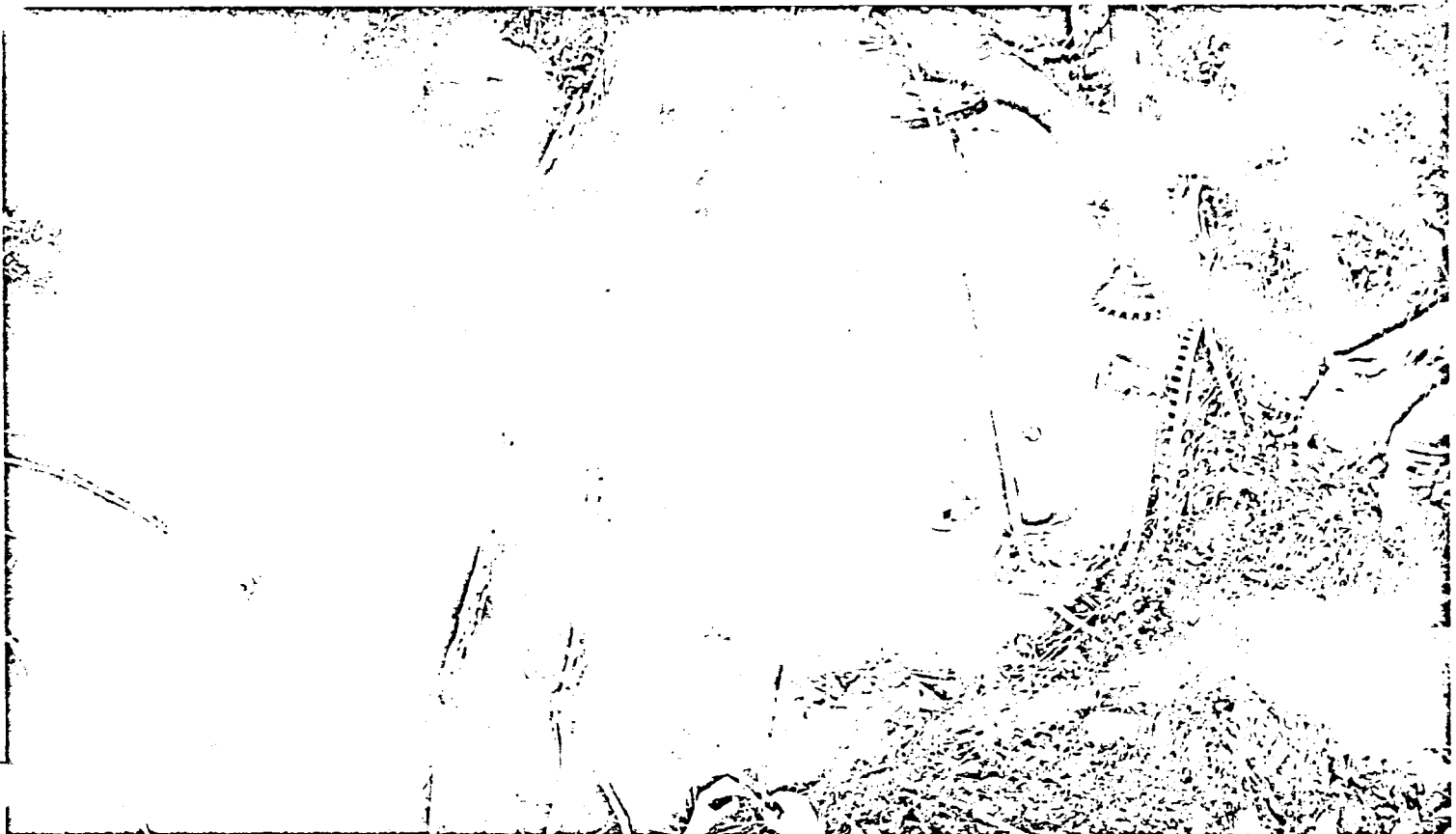
(Type all entries - attach to or enclose with photograph)

Maryland	
COUNTY Cecil	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

HT CE-112

SEE INSTRUCTIONS

1. NAME			
CDMDN: Principio Furnace			
AND/OR HISTORIC: Principio Iron Furnace; Principio Iron Works			
2. LOCATION			
STREET AND NUMBER: South side of Post Road, 1 1/2 miles east of Perryville			
CITY OR TOWN: Perryville			
STATE: Maryland	CODE 24	COUNTY: Cecil	CDDE 015
3. PHOTO REFERENCE			
PHOTO CREDIT: Smithsonian Institution			
DATE OF PHOTO: April 1968			
NEGATIVE FILED AT: Division of Mechanical & Civil Engineering Smithsonian Institution, Washington, D. C. 20560			
4. IDENTIFICATION			
DESCRIBE VIEW, DIRECTION, ETC.			
<p>Penstock and water turbine for drive of blowing engine c. 1880</p>			



## NATIONAL REGISTER OF HISTORIC PLACES

## PROPERTY PHOTOGRAPH FORM

(Type all entries - attach to or enclose with photograph)

Maryland

COUNTY  
Cecil

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ENTRY NUMBER

DATE

## 1. NAME

COMMON: Principio Furnace

AND/OR HISTORIC: Principio Iron Furnace; Principio Iron Works

## 2. LOCATION

STREET AND NUMBER:

South side of Post Road, 1 1/2 miles east of Perryville

CITY OR TOWN:

Perryville

STATE:

Maryland

CODE

24

COUNTY:

Cecil

CODE

015

## 3. PHOTO REFERENCE

PHOTO CREDIT: Smithsonian Institution

DATE OF PHOTO: April 1968

NEGATIVE FILED AT: Division of Mechanical & Civil Engineering  
Smithsonian Institution, Washington, D. C. 20560

## 4. IDENTIFICATION

DESCRIBE VIEW, DIRECTION, ETC.

Furnace stack of 1836

SEE INSTRUCTIONS

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**NATIONAL REGISTER OF HISTORIC PLACES  
PROPERTY MAP FORM**

*(Type all entries - attach to or enclose with map)*

STATE	
Maryland	
COUNTY	
Cecil	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

SEE INSTRUCTIONS

<b>1. NAME</b>			
COMMON: Principio Furnace			
AND/OR HISTORIC: Principio Iron Furnace; Principio Iron Works			
<b>2. LOCATION</b>			
STREET AND NUMBER:			
South side of Post Road, 1 1/2 miles east of Perryville			
CITY OR TOWN:			
Perryville			
STATE:	CODE	COUNTY:	CODE
Maryland	24	Cecil	015
<b>3. MAP REFERENCE</b>			
SOURCE:			
USGS 7.5 minute map; Havre de Grace Quadrangle			
SCALE: 1: 24 000			
DATE: 1964			
<b>4. REQUIREMENTS</b>			
TO BE INCLUDED ON ALL MAPS			
1. Property boundaries where required.			
2. North arrow.			
3. Latitude and longitude reference.			

HAVRE DE GRACE QUADRANGLE  
USGS 7.5 minute map  
scale: 1: 24 000  
1964

lat.  $39^{\circ} 34' 47''$   
long.  $76^{\circ} 02' 11''$

lat.  $39^{\circ} 34' 45''$   
long.  $76^{\circ} 01' 38''$

lat.  $39^{\circ} 34' 19''$   
long.  $76^{\circ} 02' 13''$

lat.  $39^{\circ} 34' 17''$   
long.  $76^{\circ} 01' 40''$

Furnace Bay  
Charter Hall

CE-112

1. STATE Maryland  
COUNTY Cecil County  
TOWN Principio Furnace VICINITY  
STREET NO.

ORIGINAL OWNER Colonel Samuel Hughes & Associates  
ORIGINAL USE industrial  
PRESENT OWNER Whitaker Drow Company  
PRESENT USE ruin  
WALL CONSTRUCTION stone & brick  
NO. OF STORIES

HISTORIC AMERICAN BUILDINGS SURVEY  
INVENTORY *CE*

2. NAME Principio Furrace

DATE OR PERIOD ~~18<sup>th</sup> + 19<sup>th</sup> Centuries~~ 1836  
STYLE  
ARCHITECT  
BUILDER

3. FOR LIBRARY OF CONGRESS USE

#### 4. NOTABLE FEATURES, HISTORICAL SIGNIFICANCE AND DESCRIPTION

OPEN TO PUBLIC NO

Please turn to attached description. ~~page~~  
Robert M. Vogel, Smithsonian Institution

5. PHYSICAL CONDITION OF STRUCTURE	Endangered	YES	Interior	Exterior
------------------------------------	------------	-----	----------	----------



6. LOCATION MAP (Plan Optional)

3. PUBLISHED SOURCES (Author, Title, Pages)  
INTERVIEWS, RECORDS, PHOTOS, ETC.

Johnston, History of Cecil County,

7. PHOTOGRAPH

9. NAME, ADDRESS AND TITLE OF RECORDER

Michael Bourne  
Maryland Historical Trust

DATE OF RECORD December 27, 1967

SUPPLEMENTAL INFORMATION AND PHOTOGRAPHICS MAY BE ADDED ON SHEET OF SAME SIZE



1. STATE Maryland

COUNTY Cecil

TOWN Principio VICINITY

STREET NO. Furnace

ORIGINAL OWNER Col. Samuel Hughes & assoc.

ORIGINAL USE industrial

PRESENT OWNER Whitacker Iron Co.

PRESENT USE ruin

WALL CONSTRUCTION stone and brick

NO. OF STORIES

HISTORIC AMERICAN BUILDINGS SURVEY  
INVENTORY CE - 112

2. NAME Principio Furnace

DATE OR PERIOD 1836

STYLE

ARCHITECT

BUILDER

3. FOR LIBRARY OF CONGRESS USE

4. NOTABLE FEATURES, HISTORICAL SIGNIFICANCE AND DESCRIPTION

OPEN TO PUBLIC no

Please turn to attached description.

5. PHYSICAL CONDITION OF STRUCTURE

Endangered

yes

Interior

Exterior



6. LOCATION MAP (Plan Optional)

3. PUBLISHED SOURCES (Author, Title, Pages)  
INTERVIEWS, RECORDS, PHOTOS, ETC.

George Johnston, History of Cecil County.

7. PHOTOGRAPH

Coln 2250-51

9. NAME, ADDRESS AND TITLE OF RECORDER

Robert M. Vogel, Smithsonian Institution

Michael Bourne, Maryland Historical Trust

DATE OF RECORD December 27, 1967

SUPPLEMENTAL INFORMATION AND PHOTOGRAPHS MAY BE ADDED ON SHEET OF SAME SIZE

The Principio Iron Furnace, Principio Furnace (near Perryville),  
Cecil County, Maryland

History

The Principio Company was organized in 1714 by a group of English businessmen for the purpose of producing iron in the colonies. The following year Joseph Farmer was sent to the new country to explore the possibilities of setting up iron-making facilities, and by 1716 Stephen Onion, William and Thomas Russell, and twenty indentured servants began to produce small quantities of iron and to construct a blast furnace on Principio Creek -- the site selected by Farmer. Completed in 1724, this furnace was used up to the outbreak of the Revolution, when it was confiscated by the State. In 1785 the land was purchased by Col. Samuel Hughes, Edwin Cole, Richard Potts and others, and a new blast furnace was erected a few hundred yards south of the original furnace. At the same time the owners built a boring mill for cannon, a grist mill and tenement houses for the workers.

During the War of 1812 the British landed in barges below the furnace constructed by Hughes, destroyed the finished cannon, and set fire to the furnace and the other structures. Another furnace -- the one standing today -- was built in 1836 by the predecessors of the property owners today, the Whitaker Iron Company. A later furnace, built in 1890, was dismantled when iron production was discontinued at the Principio site about 1915.

The historical importance of the Principio Furnace is twofold: being the first iron furnace in Maryland it gave impetus to the growth of an iron industry in the United States; and by producing cannon which were used in the Revolutionary War, the War of 1812 and the Civil War, it contributed to the military history of our nation.

Present Condition

The furnace which is standing at the Principio site today is the one built in 1836. The other furnaces and forges are no longer above ground, having been destroyed or dismantled. Near the existing furnace is a turbine which is connected with a blowing machine through a series of gears. Behind the furnace

-2-

(see building)  
is a large heater which provided hot air for the furnace. The heater is in relatively good condition and the pipes which carried the air to and from the furnace are still in place.

In the general area surrounding the furnace are over a dozen buildings; some have little connection with the production of iron but were undoubtedly important in the life of those who worked at the furnace. The most interesting of these structures is a circular brick charcoal-burner which, according to local authorities, was used only once. Its excellent condition supports this contention. Other buildings on the Whitaker property are as follows:

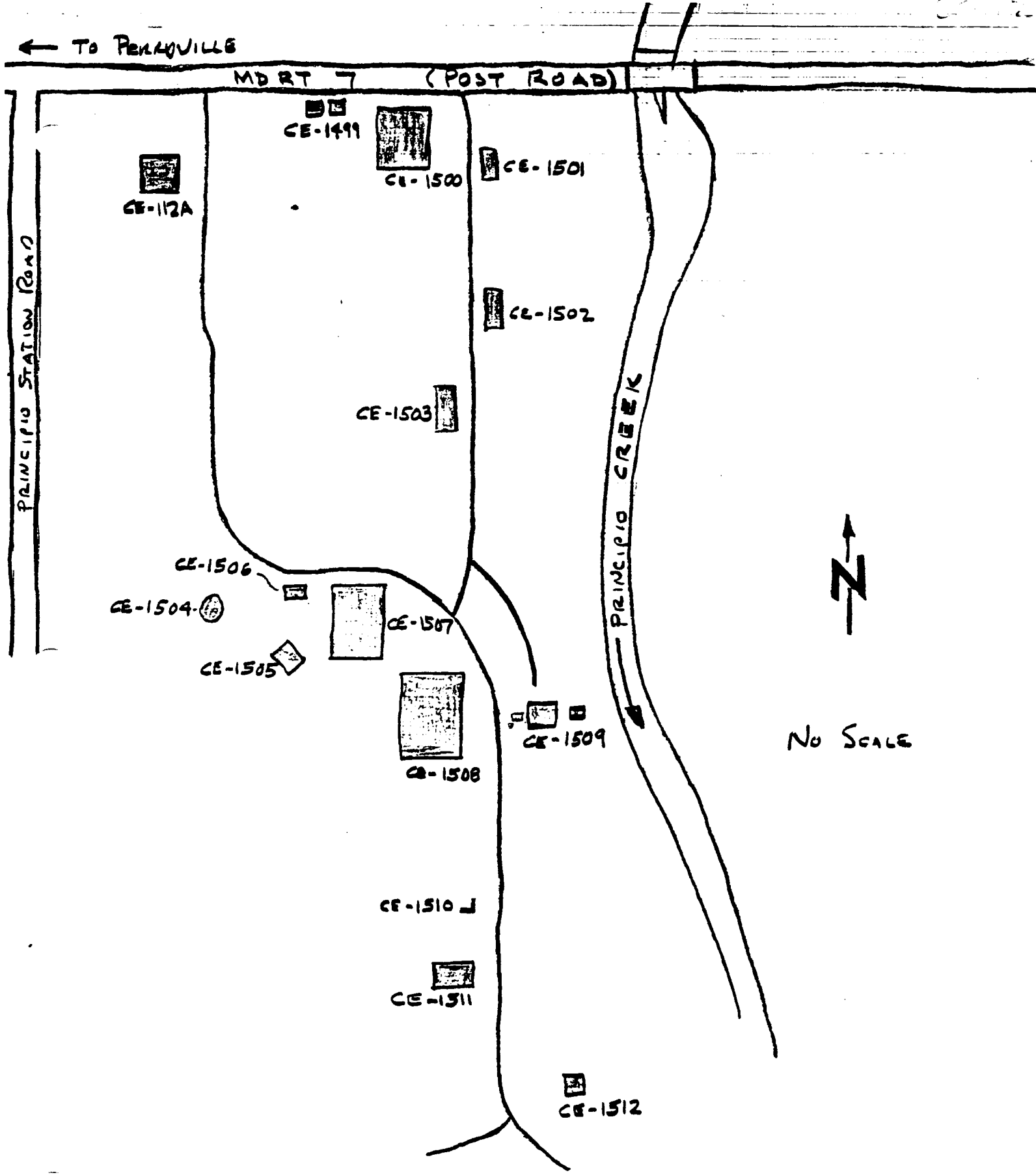
- a) 1 brick machine shop
- b) 1 brick shed
- c) 1 brick wheelwright's shop
- d) 1 brick saw mill and tool shop
- e) 1 wooden scrap shed
- f) 1 wooden charcoal shed
- g) 1 wooden mule barn
- h) 1 wooden blacksmith's shop
- i) 1 wooden building used as a post-office until 1836
- j) 1 wooden post-office constructed in 1836
- k) 3 mill houses (circa 1900)
- l) 2 houses of undetermined date
- m) The Whitaker House (built in 1837 and presently occupied by the caretaker.)

\* / see also (building list)

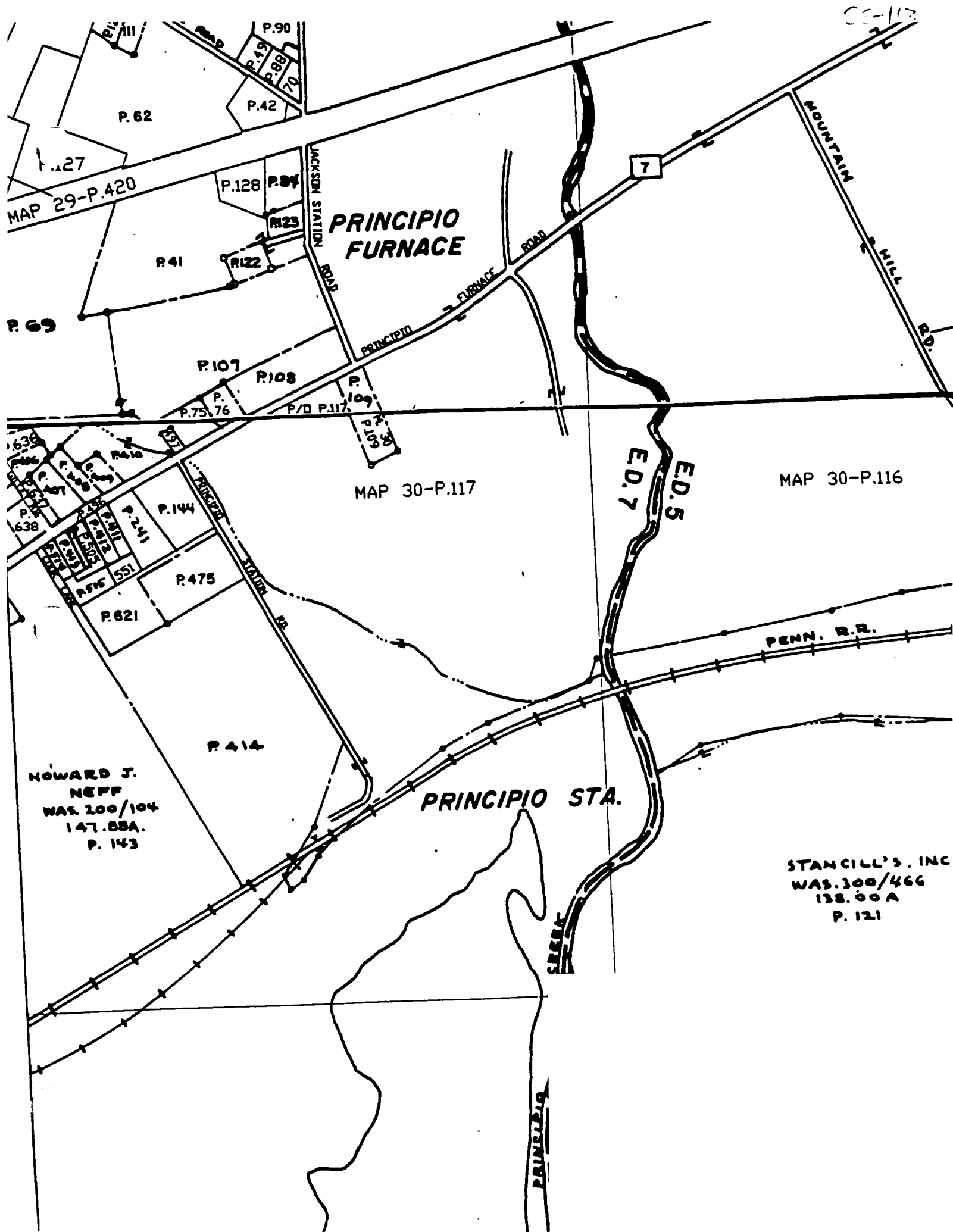
Results of MIHP Property Name Search for: principio  
Cecil

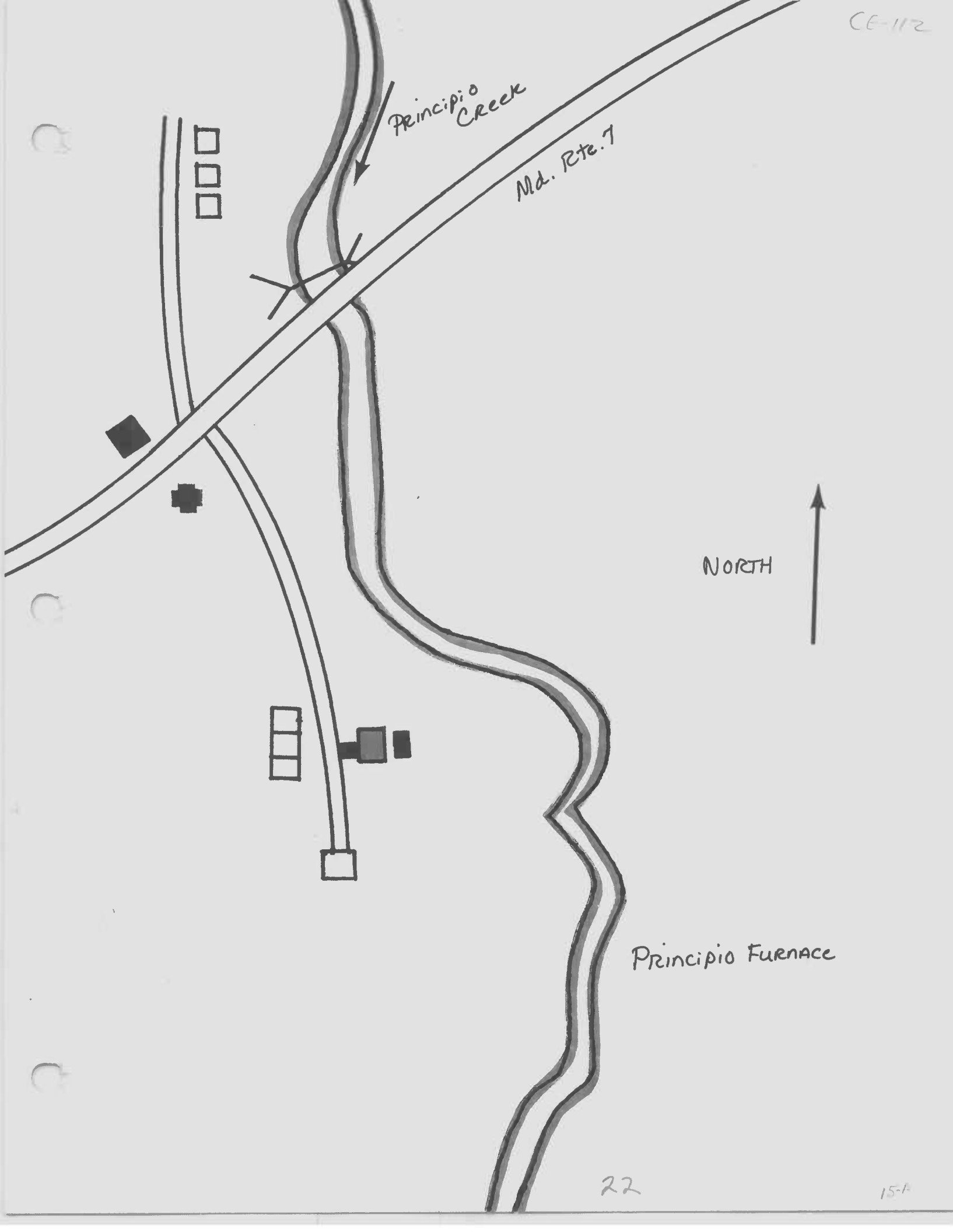
County: Cecil

Property Name	Inventory Number	Address
Principio Furnace (Principio Iron Works)	CE-112	Principio Furnace Road (MD 7)
Principio Furnace Methodist Episcopal Church	CE-1232	Principio Furnace Road (MD 7)
Principio Iron Works - 1837 Charcoal Iron Furnace	CE-1509	
Principio Iron Works - Blacksmith/Wheelwright Shop	CE-1503	
Principio Iron Works - Blower Engine House	CE-1511	
Principio Iron Works - Charcoal Barn Site No. 1	CE-1507	
Principio Iron Works - Charcoal Barn Site No. 2	CE-1508	
Principio Iron Works - Charcoal Kiln	CE-1504	
Principio Iron Works - Corn Cribs	CE-1499	
Principio Iron Works - Hoist House Remains	CE-1510	
Principio Iron Works - Lower Barn Site	CE-1500	
Principio Iron Works - Scale House Site	CE-1506	
Principio Iron Works - Shanty	CE-1512	
Principio Iron Works - Tool House	CE-1501	
Principio Iron Works - Wagon Barn	CE-1502	
Principio Iron Works - Wash House	CE-1505	



Principio Inland Wetlands  
RESOURCE SKETCH MAP  
MAY 1998  
Principio Furnace Cecil County Maryland









PRINCIPIO FURNACE

CE-112

10

IF REPRODUCED OR RESOLD  
CREDIT SHOULD BE GIVEN

THE SMITHSONIAN INSTITUTION  
NEGATIVE #

Air heater & furnace, Principio. ms.

4/68

(P. 44-44 29)



Principio Furnace, Cecil Co., Md.

Turbine & gearing (replaced overshot wheel)

for driving blowing engine of 1836 furnace

Turbine installed  $\pm$  1875.

USNM 4X5 negative

April 1968 photo



Principio Furnace  
Cecil Co., Md.

CE 112

1836 furnace stack.

USNM 4x5 photo. April 1968



1.

VF

24091  
Image  
by  
photo - processing

photography by

1/1971

Furnace Stack with blowing engine. Principio Furnace

MICHAEL ROBBINS  
PHOTOGRAPH





Principio Furnace

3. Dam, north of Maryland Route 7

1/1971

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CE-112

MICHAEL ROBERTSON  
PHOTOGRAPH



PRINCIPIO FURNACE, CECIL COUNTY, EASTERN SHORE, MARYLAND

CE-112

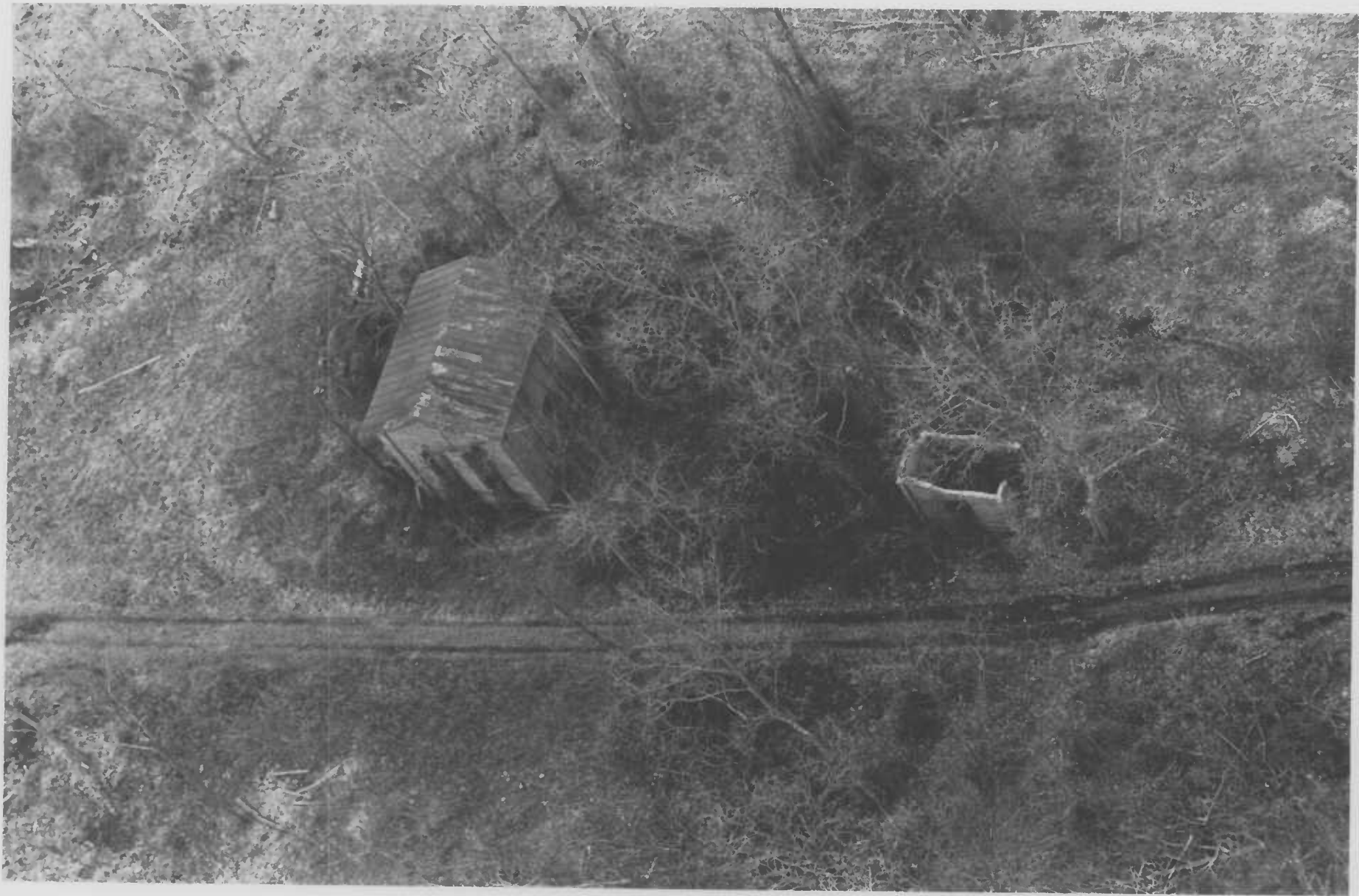


CE-112

Principio Furnace

Principio

Negatives at MIT



Principio Furnace  
7. Auxiliary Buildings

CE-112

image

photo - processing  
by

photography by:

3

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24091

Detonator Ring 1991

MICHAEL ROBBINS  
PHOTOGRAPH